The 2003 Fire Weather Operations Plan

for Central and Eastern

Kentucky

including

South Central Indiana

National Weather Service

Jackson & Louisville, Ky

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Kari Fleegel, *Assistant Fire Weather Program Leader NWS Charleston, WV*; who supplied contact information pertinent to northeast Kentucky.

Jonathan D. Pelton
Fire Weather Program Leader
NWS Jackson, Kentucky.

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Fire Weather Organizational Directory
2003

National Weather Service Office, Jackson
1329 Airport Rd.
Jackson, KY 41339

Meteorologist in Charge
Shawn B. Harley (shawn.harley@noaa.gov)

Fire Weather Program Leader
Jon Pelton (IMET)(jonathan.pelton@noaa.gov)

Assistant Fire Weather Program Leader
Pete Geogerian(peter.geogerian@noaa.gov)

National Weather Service, Louisville
6201 Theiler Lane
Lousiville, KY 40229

Meteorologist in Charge
Kimberly Pye (kimberly.pye@noaa.gov)

Fire Weather Program Leader
Joe Ammerman(joseph.ammerman@noaa.gov)

National Weather Service, Paducah
8250 U.S. Highway 60
West Paducah, KY 42086

Meteorologist in Charge
Beverly Poole (beverly.poole@noaa.gov)

Fire Weather Program Leader
Kelly Hooper(kelly.hooper@noaa.gov)

Greg Meffert (IMET) (gregory.meffert@noaa.gov)

National Weather Service, Wilmington
1901 South State Route 134
Wilmington, OH 45177

Meteorologist in Charge
Kenneth Haydu (kenneth.haydu@noaa.gov)

Fire Weather Program Leader
John J. Franks (IMET Trainee)(john.j.franks@noaa.gov)

National Weather Service, Charleston
400 Parkway Road
Charleston, WV 25309

Meteorologist in Charge
Alan Rezek (alan.rezek@noaa.gov)

Fire Weather Program Leader
Dan Bartholf (daniel.bartholf@noaa.gov)

Assistant Fire Weather Program Leader
Kari Fleegel (IMET Trainee) (kari.fleegel@noaa.gov)

Telephone Numbers and Internet Access

Note: These are unlisted numbers and are not to be given to the general public.

WFO Jackson

Fire Weather Forecaster
1-606-666-5636
1-606-666-4168 (fax)

Internet Access:
http://www.crh.noaa.gov/jkl/firewx/fire_weather.html

Prescribed Burn or Spot Forecast Request Page:
http://spot.nws.noaa.gov/cgi-bin/spot/spotmon?site=jkl

WFO Louisville

Fire Weather Forecaster
1-502-962-6426
1-502-968-5196
1-502-968-5663 (fax)

Internet Access:
http://www.crh.noaa.gov/lmk/firewx.htm

Prescribed Burn or Spot Forecast Request Page:
http://spot.nws.noaa.gov/cgi-bin/spot/spotmon?site=lmk

WFO Paducah

Fire Weather Forecaster
1-800-533-7189
1-270-744-0321
1-270-744-3828 (fax)

Internet Access:
http://www.crh.noaa.gov/pah/forecast/firewx.html

WFO Wilmington, Ohio

Fire Weather Forecaster
1-937-383-0228/0229/0623
1-937-383-0033 (fax)

Internet Access:
http://www.nws.noaa.gov/er/iln/fireweather.htm

WFO Charleston, West Virginia

Fire Weather Forecaster
1-304-746-0189
1-304-746-0193 (fax)

Internet Access:
http://www.nws.noaa.gov/er/rlx/firewx.html

INTRODUCTION

The National Weather Service's Fire Weather Program is designed to provide forecasts, warnings, and consultation services for the prevention, suppression, and management of forest and rangeland fires and for a host of land management activities. These meteorological services are built to meet the weather requirements of federal and state wild land managers.

The program is customer-oriented and is not limited to just wild fire management, but also includes all forest and range management weather support (such as prescribed burns and spot forecasts). Weather support is available throughout the year and not just during the normal fire season.

This Operations Plan will cover how weather services can be requested, how they will be provided, and how compensation will be rendered if need be.

This plan will be reviewed annually by all parties. Any intermediate changes will be coordinated with all parties involved before the changes are incorporated.

New For 2003

The format for the Fire Weather Zone Forecasts will change slightly during fall 2003 or during Sping 2004 to a standard national format. The National Weather Service will coordinate the changes with the

USFS.

After coordination with the USFS, Spot and Prescribed Burn Forecast requests may come from either the Kentucky Interagency Coordination Center (KICC) in Winchester or the individual district offices.

With the new Interagency Memorandum of Agreement, State Land Management Agencies can request Spot Forecasts.

FORECAST AREAS

Five offices share responsibility for forecasts and warnings in the state of Kentucky. The map in the attachments shows the specific areas of responsibility for each office.

FIRE SEASON

The normal fire season will be broken into two separate periods. The Spring season will run from February 15 through April 30. The fall fire season will begin on October 1 and end on December 15. These dates may be changed depending on the severity of the fire season and the needs of the users per coordination. Normally, the USDA Forest Service will notify each office of any extensions to the fire weather season(s) that they require.

ISSUANCE TIME OF NORMAL FORECASTS

The narrative forecast will normally be issued by 800 AM Eastern Time, seven days a week and updated as warranted. The point forecast will be issued by 315 PM Eastern Time. Examples of narrative and point forecasts are included in the appendices.

CONTENT OF NARRATIVE FIRE WEATHER FORECAST

A headline may be added to the top of the forecast, denoting significant weather, or for the issuance of a Red Flag Warning or Fire Weather Watch. The synopsis will briefly cover locations of fronts and systems which produce the weather along with highlighting significant trends or changes that the forecaster anticipates. The 36 hour forecast will cover specific weather elements mentioned below. The extended forecast portion of the narrative forecast will pick up where the short term left off and continue out through day seven. The extended portion is a general forecast which mentions the possibility of precipitation, expected high and low temperatures for each day, and any expected winds in excess of

15 mph.

Elements of the narrative are described below.

1. **SKY COVER**
   A. Clear (or Sunny) -- < 1/8th cloud cover.
   B. Mostly Clear/Mostly Sunny -- 1/8th to 2/8ths of cloud cover.
   C. Partly Cloudy/Partly Sunny-- 3/8ths to 5/8ths of cloud cover.
   D. Mostly Cloudy -- 6/8ths to 7/8ths cloud cover.
   E. Cloudy -- 8/8ths cloud cover.
   F. Increasing Cloudiness -- the clouds are increasing in amount (this also implies thickening of clouds).
   G. Decreasing Cloudiness-- A progressive decrease in the amount of sky covered with clouds.
   H. Variable Cloudiness-- A constant variation in the amount of clouds covering the sky with respect to time and space.

2. **PRECIPITATION TYPE**
   A Rain--General, not showery, usually in a stable atmosphere. Small to medium sized water droplets.
   B. Drizzle--General precipitation in a stable atmosphere. Very small water droplets that appear to float in the atmosphere.
   C. Freezing Rain/Drizzle-- Liquid precipitation that freezes upon impact with the ground or vegetation.
   D. Sleet--Precipitation that falls in the form of frozen rain or partially frozen rain.
   E. Snow--Frozen precipitation of relatively long duration, general or patchy, not showery.
   F. Snow Flurries--Light snowfall of short duration with some clearing between occurrences. Accumulation is slight.
   G. Showers--Rain/snowfall of short duration and varying intensity, usually beginning and ending abruptly.
   H. Thundershowers--Same as a shower but accompanied by thunder.
   I. Thunderstorms--Downpour of rain, often with strong gusty winds. Small hail may also be present.
   J. Severe Thunderstorm-- Heavy downpours of rain, accompanied by wind gusts to 50 Knots (58 mph) or greater and/or hailstones of 3/4 inch or larger.

3. **TEMPERATURE**
The temperature will be in degrees Fahrenheit. The maximum and minimum temperatures are forecast for the 30-hour period from 1:00 PM the day of the forecast until 7:00 PM the next day. Local variations due to terrain (e.g. ridge/valley splits) will be mentioned in the narrative.

4. **RELATIVE HUMIDITY**
The Relative Humidity (RH)is the ratio, in percent, of the amount of moisture in the air compared to the amount the air could hold if fully saturated (100%). The range of RH is from 0% to 100%. Usually, the minimum RH occurs at the time of the maximum temperature and the maximum RH occurs at the time of the minimum temperature.

Because of the dependency of the relative humidity upon temperature, it should be noted that if the temperature is under forecast (the actual temperature is higher than forecast), then the forecasted relative humidity likely will be too high.

5. **WIND - DIRECTION AND SPEED**
The wind direction applies to the direction from which the wind will blow. The direction will be listed using the 16 point compass (e.g. NE, S, WSW, etc.). Any significant changes expected during the forecast period will be mentioned in the narrative.

The wind speed will be in miles per hour (mph). The speed is the forecast for the 20-foot level. Speeds pertain to the two minute averages while gusts pertain to the maximum instantaneous value expected.

6. Wind Shift
If a shift in wind direction associated with a frontal passage is expected during the period, the new direction and wind speed will be forecast. Wind shifts may also be mentioned in the synopsis. Because a front may take several hours to move through a zone, the approximate time of the wind shift will be encoded (i.e. Northeast 10 to 15 mph after midnight).

7. POPS and Type
The probability of precipitation, or POP, expresses the

chance that measurable rainfall will occur at any given point within a county zone group. Measurable rainfall is 0.01 inches or greater. Probability is expressed in percent. A forecast of the predominate type of precipitation will accompany a probability of precipitation forecast **(i.e. 40 percent chance of showers, 60 percent chance of rain, 90 percent chance of light snow).**

8. Smoke Management Forecast

The forecast parameters include 1700 foot mixing temperature, mixing height, transport wind, and stability index value.

a. 1700 foot (500 meter) Mixing Height Temperature

This is the surface temperature that must be reached in order for the mixing depth to reach 1700 feet. Once the forecast temperature is reached at the burn site, it can be assumed that the mixing height above the burn site is at least 1700 feet or 500 meters.

Note: One consequence of the Clean Air Act, is that land managers must practice principles of careful smoke management. This is done by combining favorable meteorological conditions with a variety of prescribed fire techniques so that smoke will be readily dispersed. The Clean Air Act has established 500 meters as a minimum for mixing height for permitting prescribed burning.

b. Afternoon Mixing Height

Mixing height is the extent or depth to which smoke will be dispersed by means of turbulence and diffusion. The forecast of mixing height is expressed in meters above ground level(MAGL). The Jackson office will normally express this value based on 1350 feet elevation (approximately 400 meters elevation). Deviations from this can be computed if needed and will be if requested.

c. Transport Wind

Transport wind is the average wind speed in meters/second in the mixing depth above the surface. These winds are good indications of the horizontal dispersion of suspended particles. The transport wind is the forecast wind at the time of maximum mixing of the atmosphere, normally during the mid afternoon. Usually a wind of less than 4 meters/second restricts an agency from burning. Transport

wind directions are typically given to eight compass points (e.g. northeast, east southwest, etc.)

Transport winds are not encoded for the nighttime portion of the forecast.

INDIVIDUAL STATION FORECASTS

The point forecast will be issued around 3:00 PM daily during the fire weather season.

The National Fire Danger Rating System (NFDRS) is a quantitative means for evaluating the fire danger across a vast area such as a forest. This complex model of fuel and weather parameters processes daily weather observations and fuel moisture as input, and fire managers receive numeric output that suggest the severity of fire danger over a large area.

Maps showing the locations and descriptions of NFDRS stations are included in the Appendices.

Point Forecast Terminology

1. **STATION NAME**
   Each location will have a name. This name will be provided by the agency requesting the observation site.

2. **STATION NUMBER**
   Before a forecast will be made for a station, it must have a valid station number in WIMS.

3. **VALID DATE**
   The valid date will be the next day in the order: YYMMDD

4. **TIME**
   The valid time will be 1300 Eastern Time (1:00 PM)

5. **State of the Weather**
   A single digit number from 0 to 9.

   0 Clear (Less than 1/10th of sky is cloud covered).

1 Scattered Clouds (1/10th to 5/10ths of sky cloud covered).
2 Broken Clouds (6/10ths to 9/10ths of sky cloud covered).
3 Overcast (More than 9/10ths of sky cloud covered).
4 Foggy
5 Drizzle
6. Rain
7 Snow or Sleet
8 Showers (In sight or at station and reaching the ground).
9 Thunderstorms/Hail

6. **TEMPERATURES**
Temperature forecast for 1:00 PM the next day.

7. **RELATIVE HUMIDITY**
Relative Humidity forecast for 1:00 PM the next day.

8. **LIGHTNING ACTIVITY**
A. Period 1 (L1) is from 2 PM until midnight that night (a 10 hour period). Period 2 (L2) is from midnight the night of the forecast until midnight the next night (24 hour period.)
B. A single digit (1 through 6) will be used. The meaning of each number is as follows:

1 No thunderstorms
2 Few building cumulus with isolated thunderstorms
3 Much building cumulus with scattered thunderstorms, light to moderate rain reaches the ground.
4 Thunderstorms common but do not obscure the sky, moderate rain reaches the ground.
5 Thunderstorms common and occasionally obscure the sky, moderate to heavy rain reaches the ground.
6 Same as 3 above but dry, no rain

9. **WIND DIRECTION AND SPEED**
Wind forecast at 1 PM the next day. The wind speed is a 10 minute average at 20 feet above the ground measured to 16 compass points (e.g. WSW, NW, NNE, E, etc).

10. **TEN HOUR TIME LAG FUEL MOISTURE**
Since the fire weather meteorologist does not typically have access to fuel moisture information, an M will be

entered for missing.

11. **TEMPERATURE**
The 24 hour maximum and minimum temperature forecast from 1:00 PM the day of the forecast until 1:00 PM the next day. This will typically be the maximum temperature of the current day and the overnight low expected in the next 12 to 16 hours.

The temperature in the maximum temperature column must be at least equal to or higher than the temperature given in part(6) above. If not, WIMS will not process a forecast for that station.

12. **RELATIVE HUMIDITY**
The 24 hour maximum and minimum Relative Humidity forecast from 1:00 PM the day of the forecast until 1:00 PM the next day.

The maximum RH value listed must equal or exceed the value given in part (7) above. Similarly, the minimum RH value must equal or be less than the value in part (7) above.

Either error will cause WIMS to not process a forecast for that station.

13. **PRECIPITATION DURATION**
The number of hours for which precipitation is forecast. Period 1 is from 1:00 PM the day of the forecast until 5:00 AM the next day (16 hours). Period 2 runs from 5:00 AM the next day until 1:00 PM that same day (8 hours).

14. **WET FLAG**
Wet flag is used to indicate "fuels wet". All indices will be forced to zero if Y=yes is used. NOTE: in most cases a N=no will be used unless there is snow on the ground or the ground is extremely wet. If the duration of precipitation is 3 hours or greater between 500 am to 100 pm of the next day, the Wet Flag should be tripped to a Y value. Also if rain or snow is expected to be occurring at 1300, the Wet Flag should be tripped to a Y value.

SPOT FORECASTS

Requests for Spot or Prescribed Burn forecasts will be made using the internet based NWSSPOT request form. As a courtesy, land management agencies are requested to call the appropriate

National Weather Service Office, Jackson or Louisville to confirm receipt of the spot or prescribed burn forecast request. Once the forecast is completed, it will be available on the NWSSPOT website.

If the NWSSPOT server is down, requests for a spot forecast should be called in or faxed to the forecast office. In this case, the forecast will be faxed back to the requesting agency. As much lead time as possible will be given the WFO. The Spot Weather Forecast Forms (Appendix B) will be used by the WFO and sent by fax or the user may request the spot forecast information be given verbally **(i.e., when only a few weather elements are necessary for the user).**

Prescribed Burn forecasts may be requested by federal or state agencies, especially in cases where a prescribed burn is critical or especially large. Federal or state agencies may also request Spot Forecasts for support of wildland fire incidents. Unless otherwise stated by the requesting agency, the forecast parameters of sky condition, weather, temperature, relative humidity, 20 foot wind, significant/sudden changes in wind speed or direction, along with mixing heights, and transport winds shall be provided.

Federal or state agencies requesting prescribed burn or spot forecasts, should provide as much information as possible about the location and nature of the site. As much information as possible about the location, elevation, slope, and aspect of the prescribed burn or wildland fire site should be provided to the forecast office. This will aid the forecaster in providing a more specific forecast.

Site forecasts for ongoing wildfires are crucial to fighting fires and personnel safety. Of paramount importance are forecasts of wind velocity and humidity. For an ongoing wildfire, an attempt should be made to provide a current observation at the time a forecast is requested. The observation will aid the forecaster in preparing a more specific forecast. A mixing height and transport wind will be provided for the daylight hours covered by the spot forecast. **Spot or Prescribed Burn Forecasts can be requested from the appropriate National Weather Service Office at the websites listed on pages 6 and 7.**

METHODS OF COMMUNICATIONS

REGULAR FORECASTS

The narrative forecast and the NFDRS may be found on the INTERNET at the addresses listed earlier in this booklet or check the

Daniel Boone Fire Weather home page at:

www.r8web.com/boonefire.

Examples of National Weather Service products can be found in the attachments.

RED FLAG FORECASTS

Specific conditions must be met for a Fire Weather Watch and/or a Red Flag Warning to be issued. These conditions are as follows:

Ten hour fuel moisture values must be 8% or less. In addition to this fuel moisture criterion, both of the following must occur or have a high probability of occurring:

1) **Afternoon relative humidity levels are expected to fall to 25% or lower,**

2) **20 foot sustained winds are expected to reach or exceed 15 mph.**

Meteorologists should be notified if the moisture in the ten hour fuels is less than or is expected to drop to 8% or less. If the forecast office issues a Fire Weather Watch or Red Flag Warning for a specific forest or national park, the fire weather forecaster will highlight the watch or warning in the narrative forecast by using a headline and will also call the affected users.

A **"Fire Weather Watch"** is used to alert the user to the possible development of a Red Flag event in the near future. This could be up to 72 hours in advance.

A **"Red Flag Warning"** will be issued to warn the user of an impending or ongoing Red Flag event. A Red Flag Warning will be issued immediately when Red Flag Conditions are occurring. Otherwise, it will be issued for impending Red Flag Conditions when there is a high degree of confidence that conditions will develop and the forecast time of onset for the event is less than four hours.

Because of the restrictions on user programs brought about by a Red Flag Warning, it is imperative that the warning be promptly canceled when the conditions cease to exist or if the conditions are no longer expected to develop.

NOAA WEATHER RADIO

Kentucky has a statewide network of NOAA Weather Radios. These 24-hour broadcasts provide continuous up-to-date weather information directly from the National Weather Service. Taped weather messages are typically repeated every three to six minutes with longer cycles possible during periods of active weather. The broadcast is routinely monitored and revised every few hours on an as-needed basis. The broadcasts are tailored to the weather needs of the people within the receiving area. These broadcasts can usually be heard as far as 40 miles or more from the antenna site depending on terrain, receiver quality, and other factors.

The quality of the broadcasts may depend greatly upon the quality of the receiver. Receivers vary in cost from less than $20 to more than $200. Specially designed receivers sound an alarm activated by the National Weather Service to warn of severe weather, or that an emergency exists. Specific Area Message Encoder (SAME) radios are available for around $80 that will allow the user to program in which county or group of counties he wants to hear the alarm tone for.

Fire Weather Watches are not typically broadcast on NOAA Weather Radio. The Jackson office will broadcast Red Flag Warnings on the NOAA Weather Radio, but without the warning alarm tone. Other offices serving the state do not broadcast Fire Weather Watches or Red Flag Warnings on NOAA weather radio.

NOAA weather radio receiver locations are included in the Attachments.

FIRE WEATHER OBSERVATIONS

The user agencies will enter the observations into WIMS as soon as possible after 1:00 PM Local Standard Time. A forecast will not be prepared without the ability to look at an observation. Where the FTS 2000 software is available, the

fire weather forecaster will monitor the observations hourly for data quality and for the development of Red Flag conditions.

MOBILE UNIT SERVICES

The Advanced Technology Meteorological Unit (ATMU) is composed of two large shipping boxes with a total weight of 201 pounds.

These units are intended for use by a trained Incident Meteorologist(IMET). All costs incurred by the National Weather Service to have an IMET at a fire (including travel, per diem,
tolls, vehicle rental, motels, etc.) will be billed to the requesting agency. This cost generally runs from $250 to $350 a day. These units can be used anywhere in the United States. The ATMU provides the equipment and supplies for field meteorological operations. The success of these operations depends on the user agency providing a relatively clean and dry working environment as well as a normal and reliable supply of electrical power. In addition, a static-free telephone line is needed.

Most of these units are stored in the western United States. However, two units are stored in London, Kentucky at the US Forest Service's CACHE site.

Federal agencies desiring the use of the ATMU should request it through their normal regional dispatch channels. Regional headquarters will then normally relay the request back to NIFC at Boise, ID.

State agencies that have a need for the ATMU will request it through the federal agency in their state. If a state asks for the ATMU, all National Weather Service costs will be charged to the Forest Service, who will then charge the state agency.

The IMET will receive his normal pay based on his fixed schedule at the home office; including Sunday, night, and holiday differentials; from the NWS. The requesting agency will be billed for any overtime incurred and for any hazard differentials experienced by the IMET while dispatched to an incident.

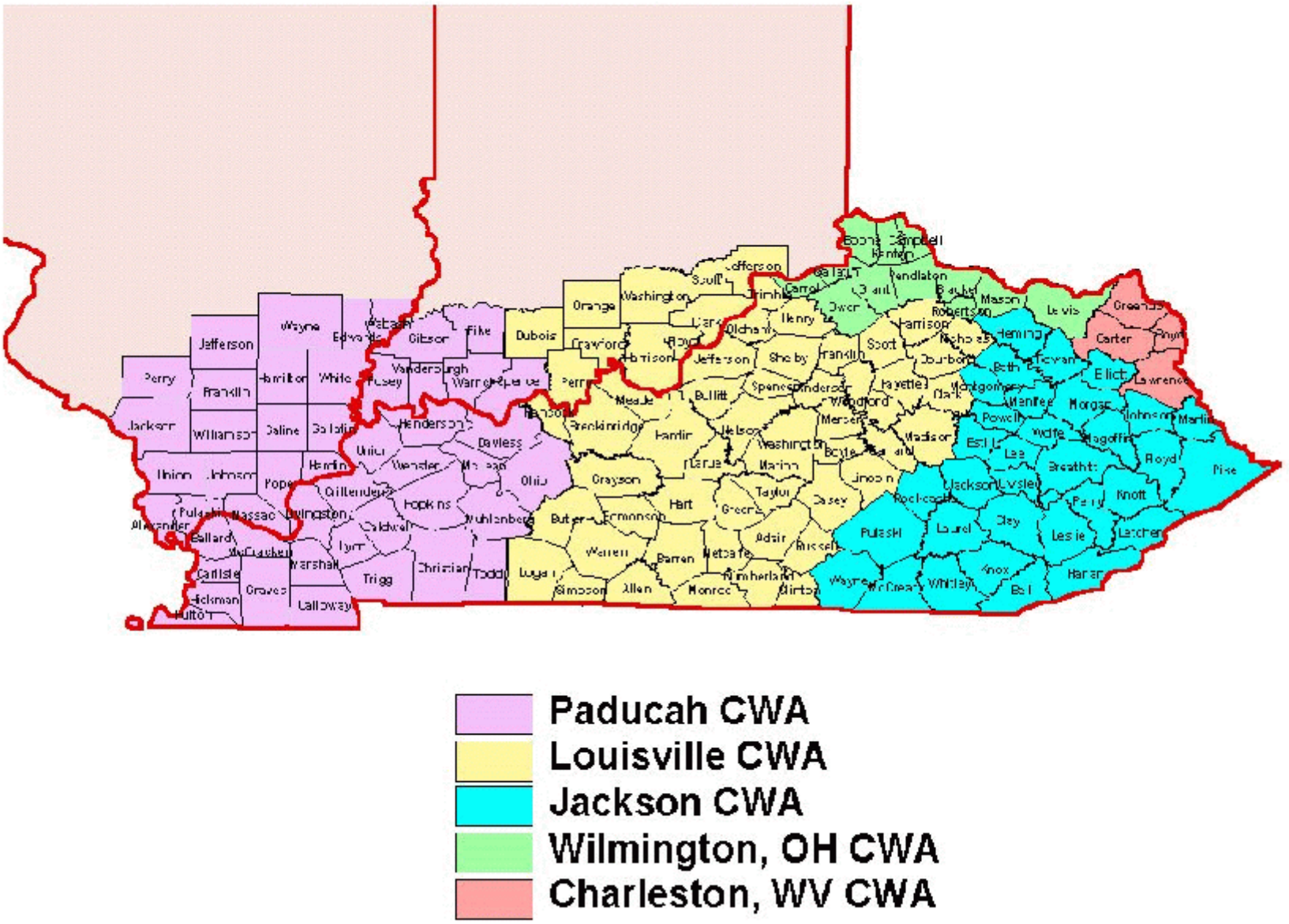
FIRE WEATHER STATION VISITS

The fire weather forecaster may be requested to accompany an official on a fire weather station visitation. A letter requesting the meteorologist should be mailed to WFO Jackson or WFO Louisville about 2-3 weeks in advance of the planned trip. The letter does not need to be specific about dates, this can be arranged over the phone. If the trip involves an overnight stay, the letter should state that the requesting agency will pay travel expenses. A one day trip will not incur any costs to the requesting agency.

Supplies, equipment, and maintenance of the fire weather station is the responsibility of the land management agency.

TRAINING

When the land management agency wishes for a fire weather forecaster to attend a course, the same procedure for requesting a forecaster to a station visitation should be followed, except that specific dates should be given in the letter. The letter will be forwarded to NWS Central Region Headquarters so that a reimbursable task code can be assigned for the trip.


Paducah CWA
Louisville CWA
Jackson CWA
Wilmington, OH CWA
Charleston, WV CWA

NFDRS STATIONS

Number	Name	Station ID	County	Elev. (ft)	Lat.	Lon.
1	Dixon Springs	119501	Willliamson	540	37:26:09	-88:40:01
2	KYLBL	159901	Trigg	649	36:46:35	-88.03:47
3	Tipsaw Lake	128905	Perry, IN	718	38:07:30	-86:37:30
4	Hardin Ridge	125701	Monroe	750	39:00:00	-86:25:22
5	Mammoth Cave	156502	Edmonson	766	37:07:51	-86:08:52
6	Somerset	157002	Pulaski	927	37:03:18	-84:36:54
7	Koomer Ridge	154401	Wolfe	1300	37:46:08	-83:38:00
8	Triangle Mountain	152001	Rowan	1360	38:10:30	-83:24:30
9	Big Sandy	154801	Martin	1180	37:45:00	-82.37:58
10	Jackson	156001	Breathitt	1388	37:35:31	-83.19:04
11	Cherry Tree	157201	Clay	1709	37:16:48	-83:34:26
12	Yellow Creek	159801	Bell	1090	36:36:55	-83:45:45

13	**Alpine**	**185901**	**Cumberland**	**unknown***	**36.6000**	**-83.7**
14	**Crittenden**	**185901**	**Grant**	**unknowm****	**38:46:09**	**-84:36:07**
15	**Greenville**	**185901**	**Muhlenberg**	**552**	**37:16:02**	**-87:12:10**

* The elevation of the Alpine station was not available for inclusion in the Fire Weather AOP

** The elevation of the Crittenden station was not available for inclusion in the Fire Weather AOP

NOAA Weather Radio Information for Kentucky

COUNTY	SAME #	NWR TRANSMITTER	FREQ MHZ	CALL	WATTS
Adair	21001	Somerset KY	162.55	KIH44	1000
Allen	21003	Bowling Green KY	162.4	KIH45	1000
Anderson	21005	Lexington KY	162.4	KIH41	1000
Ballard	21007	Mayfield KY	162.475	KIH46	1000
Barren	21009	Bowling Green KY	162.4	KIH45	1000
Bath	21011	Lexington KY	162.4	KIH41	1000
Bell	21013	Hazard KY	162.475	KIH40	1000
Bell	21013	Pineville KY	162.525	WWG62	300
Boone	21015	Covington KY	162.55	KIH42	1000
Bourbon	21017	Lexington KY	162.4	KIH41	1000
Boyd	21019	Ashland KY	162.55	KIH39	1000
Boyle	21021	Lexington KY	162.4	KIH41	1000
Bracken	21023	Maysville KY	162.425	KZZ49	300
Bracken	21023	Covington KY	162.55	KIH42	1000
Breathitt	21025	Hazard KY	162.475	KIH40	1000
Breathitt	21025	Jackson KY	162.425	WWG26	300
Breckinridge	21027	Louisville KY	162.475	KIH43	1000
Bullitt	21029	Louisville KY	162.475	KIH43	1000
Butler	21031	Bowling Green KY	162.4	KIH45	1000
Caldwell	21033	Madisonville KY	162.525	WXJ91	1000
Calloway	21035	Mayfield KY	162.475	KIH46	1000
Campbell	21037	Covington KY	162.55	KIH42	1000
Carlisle	21039	Mayfield KY	162.475	KIH46	1000
Carroll	21041	Owenton KY	162.45	KZZ48	300
Carter	21043	Ashland KY	162.55	KIH39	1000
Casey	21045	Somerset KY	162.55	KIH44	1000
Christian	21047	Madisonville KY	162.525	WXJ91	1000
Christian	21047	Hopkinsville KY	162.45	KXI26	300
Clark	21049	Lexington KY	162.4	KIH41	1000
Clay	21051	Hazard KY	162.475	KIH40	1000
Clay	21051	Manchester KY	162.4	WWG66	300
Clinton	21053	Somerset KY	162.55	KIH44	1000
Crittenden	21055	Madisonville KY	162.525	WXJ91	1000
Crittenden	21055	Mayfield KY	162.475	KIH46	1000
Cumberland	21057	Somerset KY	162.55	KIH44	1000
Cumberland	21057	Burkesville KY	162.475	KZZ62	300

COUNTY	SAME #	NWR TRANSMITTER	FREQ MHZ	CALL	WATTS
Edmonson	21061	Bowling Green KY	162.4	KIH45	1000
Elliott	21063	Ashland KY	162.55	KIH39	1000
Estill	21065	Lexington KY	162.4	KIH41	1000
Fayette	21067	Lexington KY	162.4	KIH41	1000
Fleming	21069	Lexington KY	162.4	KIH41	1000
Floyd	21071	Hazard KY	162.475	KIH40	1000
Floyd	21071	Paintsville KY	162.525	WWG28	300
Floyd	21071	Pikeville KY	162.4	WWG69	300
Franklin	21073	Owenton KY	162.45	KZZ48	300
Franklin	21073	Lexington KY	162.4	KIH41	1000
Fulton	21075	Mayfield KY	162.475	KIH46	1000
Gallatin	21077	Covington KY	162.55	KIH42	1000
Gallatin	21077	Owenton KY	162.45	KZZ48	300
Garrard	21079	Lexington KY	162.4	KIH41	1000
Grant	21081	Owenton KY	162.45	KZZ48	300
Grant	21081	Covington KY	162.55	KIH42	1000
Graves	21083	Mayfield KY	162.475	KIH46	1000
Grayson	21085	Bowling Green KY	162.4	KIH45	1000
Green	21087	Somerset KY	162.55	KIH44	1000
Greenup	21089	Ashland KY	162.55	KIH39	1000
Hancock	21091	Owensboro KY	162.475	KZZ61	300
Hardin	21093	Elizabethtown KY	162.55	KIH43	100
Hardin	21093	Louisville KY	162.475	KIH43	1000
Harlan	21095	Hazard KY	162.475	KIH40	1000
Harlan	21095	Harlan KY	162.45	WWG68	300
Harrison	21097	Owenton KY	162.45	KZZ48	300
Harrison	21097	Lexington KY	162.4	KIH41	1000
Hart	21099	Bowling Green KY	162.4	KIH45	1000
Hart	21099	Somerset KY	162.55	KIH44	1000
Henderson	21101	Evansville IN	162.55	KIG76	1000
Henry	21103	Louisville KY	162.475	KIH43	1000
Henry	21103	Owenton KY	162.45	KZZ48	300
Hopkins	21107	Madisonville KY	162.525	WXJ91	1000
Hopkins	21107	Hopkinsville KY	162.45	KXI26	300
Jackson	21109	Hazard KY	162.475	KIH40	1000
Jackson	21109	McKee KY	162.425	WWG64	300
Jefferson	21111	Louisville KY	162.475	KIH43	1000
Jessamine	21113	Lexington KY	162.4	KIH41	1000
Johnson	21115	Paintsville KY	162.525	WWG28	300

COUNTY	SAME #	NWR TRANSMITTER	FREQ MHZ	CALL	WATTS
Johnson	21115	Ashland KY	162.55	KIH39	1000
Johnson	21115	Pikeville KY	162.4	WWG69	300
Kenton	21117	Covington KY	162.55	KIH42	1000
Knott	21119	Hazard KY	162.475	KIH40	1000
Knox	21121	Somerset KY	162.55	KIH44	1000
Knox	21121	Hazard KY	162.475	KIH40	1000
Larue	21123	Louisville KY	162.475	KIH43	1000
Laurel	21125	Somerset KY	162.55	KIH44	1000
Laurel	21125	London KY	162.475	WWG65	300
Lawrence	21127	Ashland KY	162.55	KIH39	1000
Lee	21129	Hazard KY	162.475	KIH40	1000
Lee	21129	Beattyville KY	162.5	WWG67	300
Leslie	21131	Hazard KY	162.475	KIH40	1000
Letcher	21133	Hazard KY	162.475	KIH40	1000
Lewis	21135	Maysville KY	162.425	KZZ49	300
Lewis	21135	Otway OH	162.525	WXM69	1000
Lewis	21135	Ashland KY	162.55	KIH39	1000
Lincoln	21137	Somerset KY	162.55	KIH44	1000
Livingston	21139	Mayfield KY	162.475	KIH46	1000
Logan	21141	Bowling Green KY	162.4	KIH45	1000
Lyon	21143	Mayfield KY	162.475	KIH46	1000
Lyon	21143	Madisonville KY	162.525	WXJ91	1000
McCracken	21145	Mayfield KY	162.475	KIH46	1000
McCreary	21147	Somerset KY	162.55	KIH44	1000
McLean	21149	Madisonville KY	162.525	WXJ91	1000
Madison	21151	Lexington KY	162.4	KIH41	1000
Madison	21151	Richmond KY	162.525	WWF82	300
Magoffin	21153	Paintsville KY	162.525	WWG28	300
Magoffin	21153	Hazard KY	162.475	KIH40	1000
Magoffin	21153	Pikeville KY	162.4	WWG69	300
Marion	21155	Somerset KY	162.55	KIH44	1000
Marshall	21157	Mayfield KY	162.475	KIH46	1000
Martin	21159	Ashland KY	162.55	KIH39	1000
Martin	21159	Paintsville KY	162.525	WWG28	300
Martin	21159	Pikeville KY	162.4	WWG69	300
Mason	21161	Otway OH	162.525	WXM69	1000
Mason	21161	Maysville KY	162.425	KZZ49	300
Meade	21163	Louisville KY	162.475	KIH43	1000

COUNTY	SAME #	NWR TRANSMITTER	FREQ MHZ	CALL	WATTS
Meade	21163	Ekron KY	162.45	KZZ64	300
Menifee	21165	Lexington KY	162.4	KIH41	1000
Menifee	21165	Frenchburg KY	162.475	WWG63	300
Mercer	21167	Lexington KY	162.4	KIH41	1000
Metcalfe	21169	Somerset KY	162.55	KIH44	1000
Monroe	21171	Somerset KY	162.55	KIH44	1000
Monroe	21171	Bowling Green KY	162.4	KIH45	1000
Montgomery	21173	Lexington KY	162.4	KIH41	1000
Morgan	21175	Hazard KY	162.475	KIH40	1000
Morgan	21175	West Liberty KY	162.45	WWG79	300
Muhlenberg	21177	Bowling Green KY	162.4	KIH45	1000
Muhlenberg	21177	Madisonville KY	162.525	WXJ91	1000
Nelson	21179	Louisville KY	162.475	KIH43	1000
Nicholas	21181	Lexington KY	162.4	KIH41	1000
Ohio	21183	Owensboro KY	162.475	KZZ61	300
Ohio	21183	Bowling Green KY	162.4	KIH45	1000
Oldham	21185	Louisville KY	162.475	KIH43	1000
Owen	21187	Owenton KY	162.45	KZZ48	300
Owen	21187	Covington KY	162.55	KIH42	1000
Owsley	21189	Hazard KY	162.475	KIH40	1000
Pendleton	21191	Covington KY	162.55	KIH42	1000
Pendleton	21191	Owenton KY	162.45	KZZ48	300
Perry	21193	Hazard KY	162.475	KIH40	1000
Pike	21195	Paintsville KY	162.525	WWG28	300
Pike	21195	Hazard KY	162.475	KIH40	1000
Pike	21195	Pikeville KY	162.4	WWG69	300
Pike	21195	Phelps KY	162.5	WWG81	300
Powell	21197	Lexington KY	162.4	KIH41	1000
Powell	21197	Stanton KY	162.55	WWG61	300
Pulaski	21199	Somerset KY	162.55	KIH44	1000
Robertson	21201	Maysville KY	162.425	KZZ49	300
Robertson	21201	Lexington KY	162.4	KIH41	1000
Rockcastle	21203	Somerset KY	162.55	KIH44	1000
Rockcastle	21203	Mount Vernon KY	162.425	WWG70	300
Rowan	21205	Lexington KY	162.4	KIH41	1000
Rowan	21205	Morehead KY	162.425	WWG71	300
Russell	21207	Somerset KY	162.55	KIH44	1000
Scott	21209	Owenton KY	162.45	KZZ48	300
Scott	21209	Lexington KY	162.4	KIH41	1000

COUNTY	SAME #	NWR TRANSMITTER	FREQ MHZ	CALL	WATTS
Shelby	21211	Louisville KY	162.475	KIH43	1000
Shelby	21211	Owenton KY	162.45	KZZ48	300
Simpson	21213	Bowling Green KY	162.4	KIH45	1000
Spencer	21215	Louisville KY	162.475	KIH43	1000
Taylor	21217	Somerset KY	162.55	KIH44	1000
Taylor	21217	Campbellsville KY	162.525	KZZ63	300
Todd	21219	Bowling Green KY	162.4	KIH45	1000
Todd	21219	Madisonville KY	162.525	WXJ91	1000
Todd	21219	Hopkinsville KY	162.45	KXI26	300
Trigg	21221	Mayfield KY	162.475	KIH46	1000
Trigg	21221	Madisonville KY	162.525	WXJ91	1000
Trigg	21221	Hopkinsville KY	162.45	KXI26	300
Trimble	21223	Louisville KY	162.475	KIH43	1000
Union	21225	Evansville IN	162.55	KIG76	1000
Warren	21227	Bowling Green KY	162.4	KIH45	1000
Washington	21229	Somerset KY	162.55	KIH44	1000
Washington	21229	Louisville KY	162.475	KIH43	1000
Wayne	21231	Somerset KY	162.55	KIH44	1000
Wayne	21231	Monticello KY	162.425	WWG80	300
Webster	21233	Madisonville KY	162.525	WXJ91	1000
Whitley	21235	Somerset KY	162.55	KIH44	1000
Whitley	21235	Williamsburg KY	162.5	WWG78	300
Wolfe	21237	Hazard KY	162.475	KIH40	1000
Woodford	21239	Lexington KY	162.4	KIH41	1000

ZCZC SDFFWFJKL

FNUS53 KJKL 111140

FIRE WEATHER ZONE FORECAST

NATIONAL WEATHER SERVICE JACKSON KY

538 AM EST MON FEB 11 2002

.SYNOPSIS...

HIGH PRESSURE WILL BUILD INTO THE SOUTHEASTERN UNITED STATES TODAY AND REMAIN IN CONTROL OF THE WEATHER OVER THE OHIO VALLEY THROUGHOUT THE WEEK. LOOK FOR GENERALLY DRY CONDITIONS AND SEASONABLY MILD TEMPERATURES. THE NEXT CHANCE FOR SIGNIFICANT PRECIPITATION WILL COME EARLY NEXT WEEK.

KYZ044-050>052-058>060-069-104-106>109-111-112-114-116-119-

BATH-BREATHITT-CLAY-ELLIOTT-ESTILL-FLEMING-JACKSON-JOHNSON-LEE-MAGOFFIN-MARTIN-

MENIFEE-MONTGOMERY-MORGAN-OWSLEY-POWELL-ROWAN-WOLFE-

INCLUDING THE CITIES OF...BEATTYVILLE...BOONEVILLE...CAMPTON... FLEMINGSBURG...

FRENCHBURG...INEZ...IRVINE...JACKSON...MANCHESTER...MCKEE... MOREHEAD...

MOUNT STERLING...OWINGSVILLE...PAINTSVILLE...SALYERSVILLE...SANDY HOOK...STANTON... WEST LIBERTY

538 AM EST MON FEB 11 2002

.THIS AFTERNOON...

 SKY/WEATHER...EARLY MORNING FLURRIES...THEN PARTLY CLOUDY.

 TEMPERATURE...40 TO 45

 HUMIDITY...35 TO 45 PERCENT

 WIND-20 FT...NORTHWEST 10 TO 15 MPH

 PRECIPITATION...TRACE

 TRANSPORT WINDS...NORTH AT 5 MPS

 MIXING DEPTHS...950 MAGL BASED BASED ON AN AVERAGE ELEVATION OF
 400 METERS

.TONIGHT...

 SKY/WEATHER...CLEAR

 TEMPERATURE...LOWER 20S VALLEYS...NEAR 30 RIDGES

 HUMIDITY...80 TO 100 PERCENT

 WIND-20 FT...LIGHT SOUTHWEST

 PRECIPITATION....NONE

.TUESDAY...

SKY/WEATHER....MOSTLY SUNNY

TEMPERATURE...43 TO 48

HUMIDITY...35 TO 45 PERCENT

WIND-20 FT...WEST 10 TO 15 MPH

PRECIPITATION...NONE

TRANSPORT WINDS...WEST 9 MPS

MIXING DEPTHS...1100 MAGL BASED ON AN AVERAGE ELEVATION OF
400 METERS

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KYZ068-079-080-083>086-

KNOX-LAUREL-MCCREARY-PULASKI-ROCKCASTLE-WAYNE-WHITLEY-

INCLUDING THE CITIES OF...BARBOURVILLE...LONDON...MONTICELLO...MOUNT VERNON...
SOMERSET...STEARNS...WILLIAMSBURG

538 AM EST MON FEB 11 2002

.THIS AFTERNOON...

SKY/WEATHER...BECOMING PARTLY CLOUDY.

TEMPERATURE...43 TO 48

HUMIDITY...35 TO 45 PERCENT

WIND-20 FT...NORTHWEST 10 TO 15 MPH

PRECIPITATION...NONE

TRANSPORT WINDS...NORTH AT 5 MPS

MIXING DEPTHS...1000 MAGL BASED BASED ON AN AVERAGE ELEVATION OF
400 METERS

.TONIGHT...

SKY/WEATHER...CLEAR

TEMPERATURE...LOWER 20S VALLEYS...NEAR 30 RIDGES

HUMIDITY...80 TO 100 PERCENT

WIND-20 FT...LIGHT SOUTHWEST

PRECIPITATION....NONE

.TUESDAY...

SKY/WEATHER....MOSTLY SUNNY

TEMPERATURE...45 TO 50

HUMIDITY...40 TO 50 PERCENT

WIND-20 FT...WEST 10 TO 15 MPH

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 PRECIPITATION...NONE

 TRANSPORT WINDS...WEST 9 MPS
 MIXING DEPTHS...1100 MAGL BASED ON AN AVERAGE ELEVATION OF
                 400 METERS
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KYZ087-088-110-113-115-117-118-120-
BELL-FLOYD-HARLAN-KNOTT-LESLIE-LETCHER-PERRY-PIKE-
INCLUDING THE CITIES
OF...HARLAN...HAZARD...HINDMAN...HYDEN...PIKEVILLE...PINEVILLE...PRESTONSBURG...
WHITESBURG
538 AM EST MON FEB 11 2002

.THIS AFTERNOON...
 SKY/WEATHER...A 30% CHANCE OF SNOW SHOWERS IN THE MORNING...THEN PARTLY CLOUDY.
 TEMPERATURE...39 TO 44
 HUMIDITY...AROUND 40 PERCENT
 WIND-20 FT...NORTHWEST 10 TO 15 MPH
 PRECIPITATION...TRACE TO 0.05 INCHES

 TRANSPORT WINDS...NORTH AT 5 MPS
 MIXING DEPTHS...950 MAGL BASED BASED ON AN AVERAGE ELEVATION OF
                 400 METERS
.TONIGHT...
 SKY/WEATHER...CLEAR
 TEMPERATURE...LOWER 20S VALLEYS...NEAR 30 RIDGES
 HUMIDITY...80 TO 100 PERCENT
 WIND-20 FT...LIGHT SOUTHWEST
 PRECIPITATION....NONE

.TUESDAY...
 SKY/WEATHER....MOSTLY SUNNY
 TEMPERATURE...43 TO 48
 HUMIDITY...35 TO 45 PERCENT
 WIND-20 FT...WEST 10 TO 15 MPH
 PRECIPITATION...NONE

 TRANSPORT WINDS...WEST 9 MPS
 MIXING DEPTHS...1100 MAGL BASED ON AN AVERAGE ELEVATION OF
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400 METERS

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.EXTENDED FORECAST...

.TUESDAY NIGHT...INCREASING CLOUDS WITH A CHANCE OF FLURRIES. LOWS IN THE MID 20S.

.WEDNESDAY...PARTLY CLOUDY. HIGHS 40 TO 45.

.THURSDAY AND FRIDAY...PARTLY CLOUDY. LOWS 25 TO 30 AND HIGHS 45 TO 50.

.SATURDAY...PARTLY CLOUDY. LOWS 30 TO 35 AND HIGHS 50 TO 55.

.SUNDAY...BECOMING MOSTLY CLOUDY. LOWS 35 TO 40 AND HIGHS NEAR 50.

NO SIGNIFICANT WINDS OVER 15 MPH.

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FNUS83 KJKL 131900
FWMJKL

FCST,154401,010214,13,6,58,78,1,1,SW,10,M,58,48,93,83,5,6,N

FCST,157002,010214,13,6,61,67,1,1,SW,12,M,61,47,99,72,8,5,N

FCST,157201,010214,13,6,58,78,1,1,SW,13,M,58,49,93,88,6,6,N

FCST,159801,010214,13,6,59,75,1,1,SW,09,M,59,47,99,72,7,5,N

FCST,152001,010214,13,6,57,80,1,1,SW,12,M,57,48,93,67,5,6,N

FCST,154801,010214,13,6,58,78,1,1,SW,10,M,58,47,99,71,5,6,N

FCST,156001,010214,13,6,58,78,1,1,SW,10,M,58,48,97,77,6,6,N

WWUS83 KJKL 091000

RFWJKL

RED FLAG WARNING
NATIONAL WEATHER SERVICE JACKSON KY
500 AM EST SUN MAR 9 2003

KYZ044-050>052-058>060-068-069-079-080-083>088-104-106>120-100500-

...RED FLAG WARNING FOR FOR STRONG WINDS AND LOW RELATIVE HUMIDITIES THIS AFTERNOON AND EVENING...

COUNTIES INCLUDED IN THIS RED FLAG WARNING ARE...BATH...BELL... BREATHITT...CLAY...ELLIOTT...ESTILL...FLEMING...FLOYD...HARLAN... JACKSON...JOHNSON...KNOTT...KNOX...LAUREL...LEE...LESLIE...LETCHER... MAGOFFIN...MARTIN...MCCREARY...MENIFEE...MONTGOMERY...MORGAN... OWSLEY...PERRY...PIKE...POWELL...PULASKI...ROCKCASTLE...ROWAN... WAYNE...WHITLEY...AND WOLFE.

DISCUSSION: AN AREA OF LOW PRESSURE WILL MOVE INTO THE GREAT LAKES TODAY AND DRAG A COLD FRONT ACROSS THE OHIO VALLEY. SOUTHWEST WINDS BETWEEN THIS SYSTEM AND HIGH PRESSURE OFF THE EAST COAST WILL INCREASE TO 15 TO 20 MPH THIS AFTERNOON. THESE SOUTHWEST WINDS WILL BRING WARMER AND ONLY SLIGHTLY MORE MOIST AIR INTO THE REGION. AS TEMPERATURES CLIMB TO AROUND 70 DEGREES...RELATIVE HUMIDITIES WILL DROP TO 20 TO 25 PERCENT THIS AFTERNOON.

PLEASE ADVISE THE APPROPRIATE OFFICIALS OR FIRE CREWS IN THE FIELD OF THIS RED FLAG WARNING.

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FNUS73 KJKL 101408
FWSJKL

SPOT FORECAST FOR WARM SEASON GRASS BURN.....USFS
ISSUED BY NATIONAL WEATHER SERVICE JACKSON
908 AM EST FRI JAN 10 2003

VALID UNTIL 508 PM EST FRI JAN 10 2003
IF CONDITIONS BECOME UNREPRESENTATIVE, CONTACT THE NATIONAL WEATHER SERVICE.

DISCUSSION...THE AREA WILL BE UNDER THE INFLUENCE OF A CONTINENTAL POLAR AIRMASS FOR THE NEXT SEVERAL DAYS. SEVERAL UPPER LEVEL DISTURBANCES WILL MOVE ACROSS THE REGION...BRINGING A CHANCE FOR FLURRIES...BUT NO MEASURABLE PRECIPITATION IS EXPECTED. IN ADDITION...NORTHWEST WINDS WILL INCREASE TODAY TO 10 TO 20 MPH...BUT WILL DIMINISH SATURDAY AS HIGH PRESSURE MOVES INTO THE AREA.

FOR PLANNED IGNITION TIME OF 1100 EST 1/10/03
- SKY / WEATHER.....CLOUDY AND BRISK WITH SCATTERED FLURRIES
- TEMPERATURE.....33...MAX 35
- RH.....67%...MIN 50 TO 55%
- 20 FOOT WIND.....NORTHWEST 10 TO 20 MPH
- CWR.....0%
- LAL.....1
- HAINES INDEX.....3
- MIXING HEIGHT.....1000 MAGL
- TRANSPORT WIND.....NORTHWEST AT 9 MPS

FOR TONIGHT
- SKY / WEATHER.....CLOUDY WITH SCATTERED FLURRIES EARLY...THEN PARTLY CLOUDY TEMPERATURE.....MIN 16
- RH.....MAX 80 TO 85%
- 20 FOOT WIND.....WEST 5 TO 15 MPH
- CWR.....0%
- LAL.....1
- HAINES INDEX.....4
- MIXING HEIGHT.....800 MAGL
- TRANSPORT WIND.....WEST NORTHWEST AT 7 MPS

OUTLOOK FOR TOMORROW
- SKY / WEATHER.....PARTLY CLOUDY AND CONTINUED COLD

TEMPERATURE.....MAX 29
RH.....MIN 45 TO 50%
20 FOOT WIND.....WEST AROUND 5 MPH
CWR.....0%
LAL.....1
HAINES INDEX.....4
MIXING HEIGHT.....1000 MAGL
TRANSPORT WIND.....WEST AT 8 MPS

FORECASTER...xxxxx

Prescribed Burn / Spot Forecast Request Form
(circle one)

(for NWS internal use only)

Forecaster Name: _____ Date_____

Time Request Made:_____ Request Made By (Name/Agency):_____ Disseminated by: FAX PHONE other_____

Forecast Basis_____
_____

(information supplied by agency)

Location _____ Elevation_____ft. Aspect_____
(County and community if available)

Supplied on-site observation data (if available):

Temp._____Dewpoint_____Wet Bulb_____Wind_____RH_____

Other_____

Forecast Information

Precipitation	**Today**	**_____**
Transport Wind	**_____M/S**	
Direction	**_____**	
Mixing Heights	**_____MAGL**	
Max/Min Temp	**_____**	
Min/Max RH	**_____**	
Wind Speed	**_____**	
Wind Direction	**_____**	
Cloud Cover	**_____**	

Tonight	**Tomorrow**
	_____M/S
	_____
	_____MAGL
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Remarks_____
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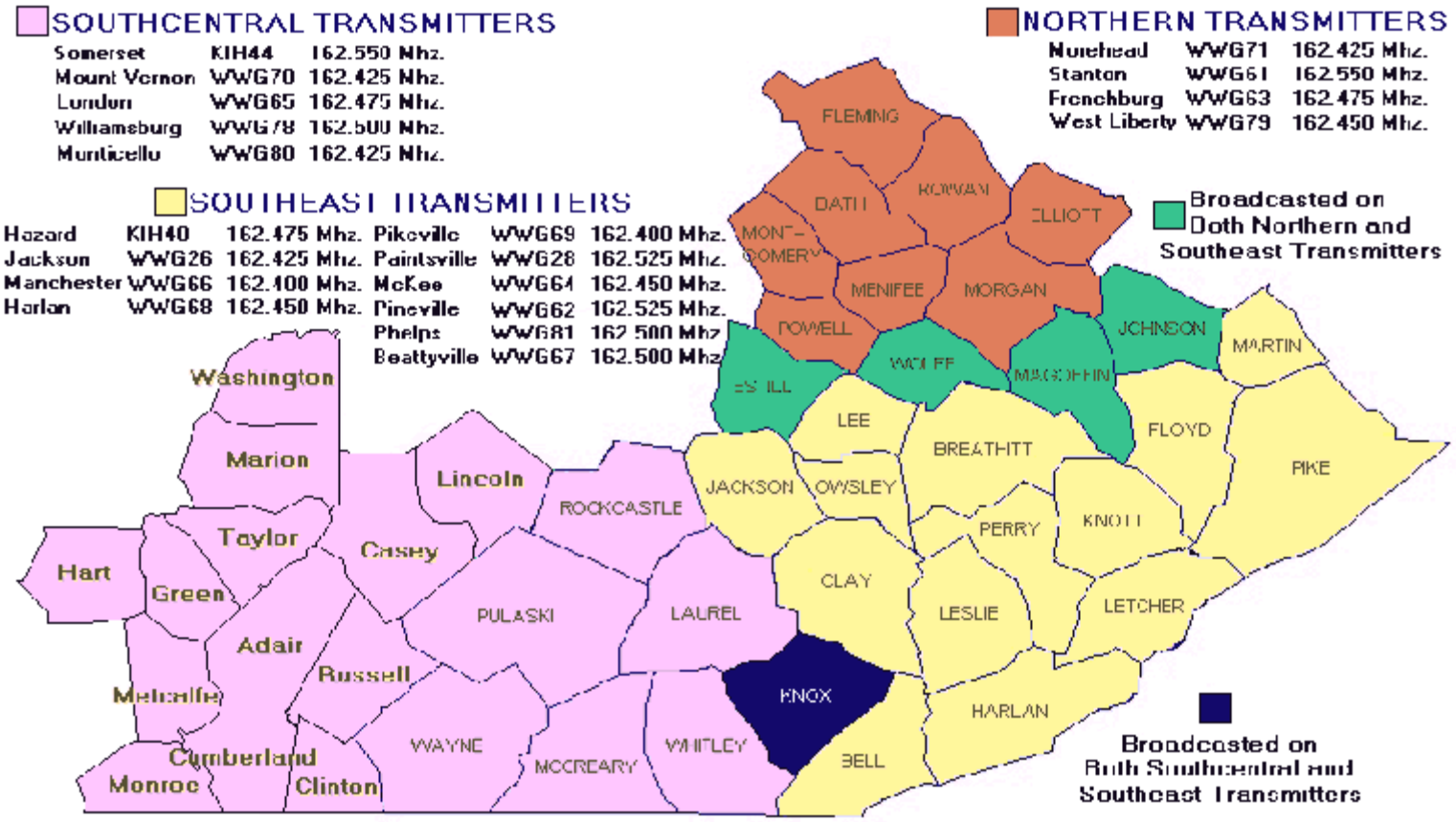
WFO Jackson NWR Coverage



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ZCZC SDFFWFSDF
FNUS53 KLMK 101429

CENTRAL KENTUCKY AND SOUTHERN INDIANA FIRE WEATHER FORECAST
NATIONAL WEATHER SERVICE LOUISVILLE KY
900 AM EST SUN FEB 10 2002

.SYNOPSIS...LOW PRESSURE WILL MOVE ACROSS INDIANA THIS MORNING AND
INTO OHIO THIS EVENING. A COLD FRONT TRAILING FROM THE LOW WILL MOVE
ACROSS CENTRAL KENTUCKY AND SOUTH CENTRAL INDIANA TONIGHT. SCATTERED
RAIN SHOWERS WILL OCCUR AHEAD OF THE FRONT. SCATTERED SHOWERS COULD
END AS SOME LIGHT SNOW SHOWERS LATE TONIGHT.

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KYZ023>025-028>043-045>049-053>057-067-INZ062-063-069>071-076>079-
083-084-089>092-111400-
ANDERSON-BOURBON-BOYLE-BRECKINRIDGE-BROWN IN-BULLITT-CLARK IN-CLARK-
CRAWFORD IN-DUBOIS IN-FAYETTE-FLOYD IN-FRANKLIN-GARRARD-HANCOCK-
HARDIN-HARRISON IN-HARRISON-HENRY-JACKSON IN-JEFFERSON IN-JEFFERSON-
JESSAMINE-LARUE-LAWRENCE IN-LINCOLN-MADISON-MARION-MARTIN IN-MEADE-
MERCER-MONROE IN-NELSON-NICHOLAS-OLDHAM-ORANGE IN-PERRY IN-SCOTT IN-
SCOTT-SHELBY-SPENCER-TRIMBLE-WASHINGTON IN-WASHINGTON-WOODFORD-
900 AM EST SUN FEB 10 2002

.THIS AFTERNOON...
  SKY/WEATHER... PARTLY TO MOSTLY CLOUDY WITH WIDELY SCATTERED RAIN
                 SHOWERS
  TEMPERATURE... LOWER TO MID 50S
  HUMIDITY... 75 TO 85 PERCENT
  WIND - 20 FT... SOUTHWEST 15 TO 20 MPH BECOMING WEST LATE
  PRECIPITATION.... WIDELY SCATTERED AMOUNTS 0.01 TO 0.05

  TRANSPORT WINDS... SOUTHWEST 10 TO 15 MPS BECOMING WEST LATE
  MIXING DEPTHS... ABOUT 850 MAGL

.TONIGHT...
  SKY/WEATHER... CLOUDY WITH SCATTERED RAIN SHOWERS...POSSIBLY A
                 FEW SNOW SHOWERS OVERNIGHT BEFORE ENDING
  TEMPERATURE... AROUND 30
  HUMIDITY... 80 TO 85 PERCENT
  WIND - 20 FT... NORTHWEST 15 TO 20 MPH
  PRECIPITATION.... SCATTERED AMOUNTS 0.01 TO 0.05

.TOMORROW...
  SKY/WEATHER... BECOMING MOSTLY SUNNY
  TEMPERATURE... 40 TO 45
  HUMIDITY... 35 TO 40 PERCENT
  WIND - 20 FT... NORTHWEST 5 TO 10 MPH
  PRECIPITATION.... 0.00

  TRANSPORT WINDS... NORTHWEST 4 TO 7 MPS
  MIXING DEPTHS... ABOUT 1000 MAGL

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KYZ026-027-061>066-070>078-081-082-111400-
ADAIR-ALLEN-BARREN-BUTLER-CASEY-CLINTON-CUMBERLAND-EDMONSON-GRAYSON-
GREEN-HART-LOGAN-METCALFE-MONROE-OHIO-RUSSELL-SIMPSON-TAYLOR-WARREN-
900 AM EST SUN FEB 10 2002

.THIS AFTERNOON...
  SKY/WEATHER... PARTLY TO MOSTLY CLOUDY WITH WIDELY SCATTERED RAIN
                 SHOWERS
  TEMPERATURE... MID 50S
  HUMIDITY... 70 TO 75 PERCENT
  WIND - 20 FT... SOUTHWEST 10 TO 20 MPH BECOMING WEST LATE
  PRECIPITATION.... SCATTERED AMOUNTS 0.01 TO 0.05

  TRANSPORT WINDS... SOUTHWEST 9 TO 14 MPS BECOMING WEST LATE
  MIXING DEPTHS... ABOUT 925 MAGL

.TONIGHT...
  SKY/WEATHER... MOSTLY CLOUDY WITH SCATTERED RAIN SHOWERS...
                 POSSIBLY MIXED WITH A FEW LIGHT SNOW SHOWERS
                 OVERNIGHT BEFORE ENDING
  TEMPERATURE... LOWER 30S
  HUMIDITY... 80 TO 85 PERCENT
  WIND - 20 FT... NORTHWEST 10 TO 20 MPH
  PRECIPITATION.... SCATTERED AMOUNTS TRACE TO 0.03

.TOMORROW...
  SKY/WEATHER... MOSTLY SUNNY
  TEMPERATURE... 40 TO 45
  HUMIDITY... AROUND 35 PERCENT
  WIND - 20 FT... NORTHWEST TO NORTH 5 TO 8 MPH
  PRECIPITATION.... 0.00

  TRANSPORT WINDS... NORTHWEST TO NORTH 3 TO 5 MPS
  MIXING DEPTHS... ABOUT 1050 MAGL


.EXTENDED FORECAST...

... NO SIGNIFICANT WINDS OVER 15 MPH...
.TUESDAY...PARTLY CLOUDY. LOWS 25 TO 30. HIGHS 45 TO 50.
.WEDNESDAY...PARTLY CLOUDY. LOWS IN THE MID 20S. HIGHS 40 TO 45.
.THURSDAY...PARTLY CLOUDY. LOWS IN THE MID 20S. HIGHS 40 TO 45.
.FRIDAY...PARTLY CLOUDY. LOWS NEAR 30. HIGHS NEAR 50.
.SATURDAY...PARTLY CLOUDY. LOWS IN THE MID 30S. HIGHS IN THE MID
50S.

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FNUS83 KLMK 092009

FWMSDF

FCST,125701,030310,13,2,27,53,1,1,N,6,M,35,17,84,44,0,0,N FCST,128905,030310,13,2,30,48,1,1,N,6,M,38,21,92,40,0,0,N
FCST,156502,030310,13,2,37,46,1,1,N,6,M,47,22,95,42,0,0,N

ZCZC SDFRFWSDF
WWUS43 KLMK 021827

RED FLAG WARNING - CANCELLATION
NATIONAL WEATHER SERVICE LOUISVILLE KY
130 PM EST THU NOV 2 2000

...RED FLAG WARNING EAST OF INTERSTATE 75 CANCELLED...

KYZ036-037-041>043-049-057-030000-
BOURBON-CLARK-FAYETTE-HARRISON-MADISON-NICHOLAS-SCOTT-
850 AM EST THU NOV 2 2000

.DISCUSSION...THE VERY DRY AIR THAT WAS ACROSS THE AREA THIS MORNING
HAS BEEN REPLACED WITH MUCH MORE MOIST AIR. THIS IS THE RESULT OF
MOISTURE FLOWING NORTH AHEAD OF A COLD FRONT. RELATIVE HUMIDITIES
WILL REMAIN ABOVE RED FLAG CRITERIA FOR THE REMAINDER OF THE
AFTERNOON.

PLEASE ADVISE THE APPROPRIATE OFFICIALS OR FIRE CREWS OF THIS
CANCELLATION OF THE RED FLAG WARNING.

$$
NNNN

FNUS73 KLMK 200041
FWSLMK

SPOT FORECAST FOR HENDERSON PARK 2 BURN.....THE NATURE CONSERVANCY ISSUED BY NATIONAL WEATHER SERVICE LOUISVILLE
741 PM EST TUE NOV 19 2002

VALID UNTIL 741 AM EST WED NOV 20 2002
IF CONDITIONS BECOME UNREPRESENTATIVE, CONTACT THE NATIONAL WEATHER SERVICE.

DISCUSSION...
DEVELOPING SURFACE LOW PRESSURE OVER THE MIDWEST WEDNESDAY AFTERNOON, WILL LEAD TO A SLIGHT INCREASE IN SOUTHERLY LOW LEVEL WINDS, AS HIGH PRESSURE SLIDES INTO THE SOUTHEASTERN STATES. VENTILATION AND SMOKE DISPERSION WILL BE SOMEWHAT LIMITED AS SOUTHERLY TRANSPORT WINDS WILL REMAIN LIGHT, AND MIXING DEPTHS WILL BE SURPRESSED DUE A LAYER OF RELATIVELY STABLE AIR ALOFT. HIGH LEVEL MOISTURE WILL ALLOW FOR A VEIL OF CIRRUS CLOUDS TO SPREAD OVER THE FORECAST POINT THROUGH MOST OF WEDNESDAY.

FOR PLANNED IGNITION TIME OF 1100 EST 11/20/02...
SKY / WEATHER..... HIGH CLOUDINESS
TEMPERATURE..... 49F
RH..... 61%
20 FOOT WIND.....SOUTH AT 2 MPH
MIXING HEIGHT.....350 FT AGL
MIXING WINDS..... SOUTH AT 2 MPS

FOR 1300 EST 11/20/02...
SKY / WEATHER..... HIGH CLOUDINESS
TEMPERATURE..... 55F
RH..... 50%
20 FOOT WIND..... SOUTH AT 3 MPH
MIXING HEIGHT..... 1050 FT AGL
MIXING WINDS..... SOUTH 3 MPS

FOR 1600 EST 11/20/02...
SKY / WEATHER..... HIGH CLOUDINESS
TEMPERATURE..... 59F
RH..... 43%
20 FOOT WIND..... SOUTHWEST AT 4 MPH
MIXING HEIGHT..... 1850 FT AGL
MIXING WINDS..... SOUTH/SOUTHWEST 4 MPS

FORECASTER...

SPOT BURN REQUEST FORM

DATE _____

LOCATION_____ ELEVATION_____

WILMINGTON NASHVILLE _____

TRANSPORT WIND _____M/S _____M/S _____M/S

DIRECTION _____ _____ _____

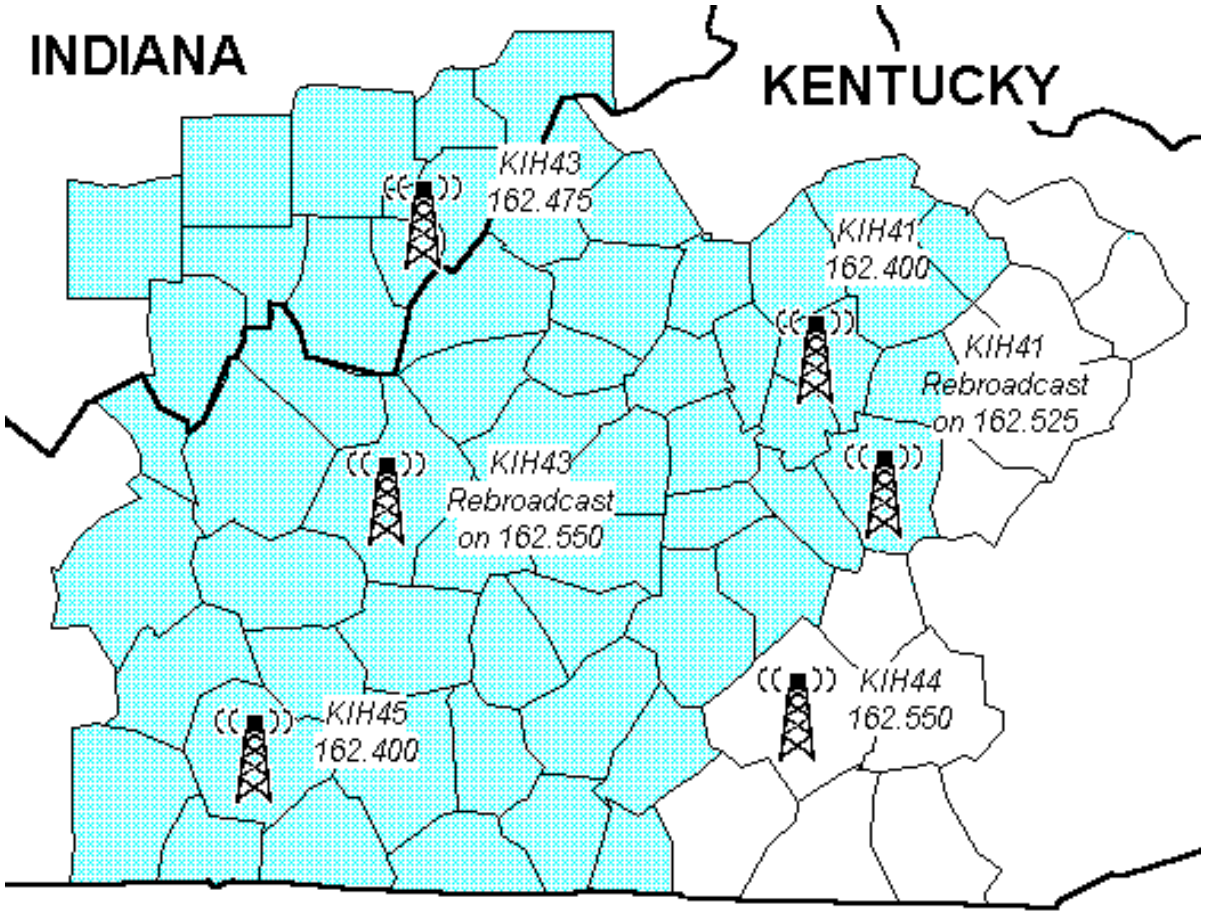
MIXING HEIGHTS _____MAGL _____MAGL _____MAGL

	TODAY	TONIGHT	TOMORROW
MAX/MIN TEMPERATURE	_____	_____	_____
MIN/MAX HUMIDITY	_____	_____	_____
WIND SPEED	_____	_____	_____
WIND DIRECTION	_____	_____	_____
CLOUD COVER	_____	_____	_____
PRECIPITATION	_____	_____	_____

REMARKS_____

NOAA Weather Radio Transmitters

for Central Kentucky and Southern Indiana



INTERAGENCY AGREEMENT

for

METEOROLOGICAL SERVICES

Among the

Bureau of Land Management

Bureau of Indian Affairs

U.S. Fish and Wildlife Service

National Park Service

of the

United States Department of the Interior

and the

Forest Service
of the
United States Department of Agriculture
and the
National Weather Service
of the
United States Department of Commerce
BLM Agreement No. 1422RAI02-0030
BIA Agreement No.
FWS Agreement No.
FS Agreement No. 02-IA11130206041
NPS Agreement No.
NWS Agreement No. 201-02-002

1.0 INTRODUCTION.

Fire management and suppression in the nation=s wildlands is an on-going concern to the American public and to the Department of the Interior's Bureau of Land Management, Bureau of Indian Affairs, Fish and Wildlife Service, and National Park Service, and the Department of Agriculture, Forest Service, as well as to the Department of Commerce, National Oceanic and Atmospheric Administration-National Weather Service (NWS). Considerable cooperation and coordination among these agencies exists, which is critical to the success of fire management, suppression and safety. This agreement will refer to

the National Weather Service as “NWS” and the federal wildland fire management agencies as the “Interagency Wildland Fire Agencies.”

The National Weather Service is legally mandated to issue weather forecasts and warnings for the protection of life and property. The Interagency Wildland Fire Agencies are responsible for the stewardship and/or protection of lands owned or held in trust by the United States or under the jurisdiction of state agencies.

The NWS and Interagency Wildland Fire Agency responsibilities are defined in Section 5. The NWS Weather Forecast Office (WFO) products and services shall be focused on respective County Warning Forecast Areas (CWFA) for the operational concerns of local wildland fire agency districts, while Interagency Wildland Fire Agencies shall focus on geographic area and national level products and services. The needs of geographic areas are met using a geographic area Memorandum of Understanding and/or geographic specific Annual Operating Plan (AOP) - (see appendix 1 for a suggested outline), and this Interagency Agreement. The NWS and Interagency Wildland Fire Agencies will coordinate and cooperate on developing fire weather policy, standards and guidelines

2.0 AUTHORITIES.

A. Economy Act of June 30, 1932 (47 Stat. 417; 31 U.S.C. 1535), as amended.
B. Travel Authority (5 U.S.C. 5702).
C. Organic Act of 1890 (15 U.S.C. 313).

D. Joint Project Authority (49 U.S.C. 44720).

E. Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.).

F. National Park Service Organic Act of August 1916 (16 U.S.C. 1).

G. National Wildlife Refuge Administration Act of June 27, 1998 (16 U.S.C. 668dd)

H. Disaster Relief Act of 1974 (42 U.S.C. 5147).

I. National Indian Forest Resources Management Act of 1990 (25 U.S.C. 3101 et seq.).

J. Cooperative Forestry Assistance Act of 1978 (P.L. 95-313, 92 Stat. 365 as amended; 16 U.S.C. 2101 (note), 2101-2103, 2103a, 2103b, 2104-2105).

K. Federal Fire Prevention and Control Act of October 29, 1974, (P.L. 93-498, 15 U.S.C. 2201 et seq., 88 Stat 1535.)

3.0 PURPOSE.

The purpose of this Inter-Agency Agreement is to combine resources and provide complementary services without duplication to best serve the needs of the public and all agencies for the protection of life, property and resource values to enhance ecosystem health. Accurate and timely meteorological and fire danger information is required to manage these resources effectively and efficiently. It is also the purpose of this Agreement to set forth the terms and conditions under which the NWS will continue to provide meteorological services to support these efforts as requested by the Interagency Wildland Fire Agencies. It is with this knowledge that this Inter-Agency Agreement is entered into.

This Agreement supersedes the “National Agreement for Meteorological Services in Support of

Agencies with Land Management and Fire Protection Responsibilities" among the six participating agencies, as listed above, that was effective June 1983.

4.0 OBJECTIVES.

The objectives of this Agreement are:

A. To identify meteorological services to be provided;
B. Establish interagency relationships; and B.
C. Define obligations of the NWS and Interagency Wildland Fire Agencies.

5.0 RESPONSIBILITIES.

The responsibilities listed are not all-inclusive, but are meant to provide the overall scope of services provided by the respective agencies.

A. The National Weather Service agrees to:
All obligations undertaken by the NWS under this Agreement are subject to the availability of appropriated funds.

1. Provide Basic Meteorological Services: Basic Meteorological Services will be provided in accordance with the Annual Operating Plan (AOP) for Fire Weather Service for designated NWS offices. These services will be made available

without cost to Interagency Wildland Fire Agencies and will include:

a. Routine fire weather forecast and updates during the designated period outlined in the AOP.

b. Extended and long-range weather and climate outlooks.

c. NWS weather observations.

d. Fire Weather Watch and Red Flag Warning program.

e. Site-specific forecasts for wildland fires or special federal projects (i.e. spraying, seeding, fuels management, or search and rescue operations).

f. Provide consultation and technical advice in support of basic services to Interagency Wildland Fire Agencies.

g. Provide weather information to a central communication gateway and the internet for Interagency Wildland Fire Agencies' use and further distribution.

h. Provide a cadre of Incident Meteorologists (IMET) in support of the fire weather program.

i. Maintain a current list of offices providing basic meteorological services.

j. National scale short-range fire weather outlooks.

2. Non-Routine Services: These services will be provided by designated NWS offices. Expenses above planned salary and operating costs will be borne by the benefiting agency.

a.Weather Observer training.

b. Weather observation station visits.

c. Participation in Wildland Fire Agency training.
   1. Course development.
   2. Classroom instruction.

d. On-site meteorological services.

3. Fire Weather Training: The NWS recognizes the need for specialized training in fire weather meteorology for forecasters. Costs associated with training NWS staff will be borne by NWS. The NWS will meet this need as follows:

a. The NWS will ensure all meteorologists producing fire weather products have met the minimum fire weather forecaster training requirements.

b. The NWS will provide specialized training for the purpose of qualifying NWS IMETs.

4. Participation in interagency groups: All NWS costs will be borne by NWS.

5. Wildland fire suppression related activities: The NWS will not charge an administrative surcharge or any other expenditure that is not authorized under the Wildland Fire Agencies' Appropriation Acts related to these activities.

B. Interagency Wildland Fire Agencies

Wildland Fire Agencies' programs provide Geographic Area and national products for the strategic role of resource prioritization and utilization. Specific responsibilities of Wildland Fire Agencies are listed below.

1. Operational Support and Predictive Services

a. Geographic Area and national level fire weather products, services and assessments will be provided for resource allocation and prioritization.

b. Integration of weather and climatic sciences into Geographic Area Coordination Center (GACC) operations.

c. Develop value-added products to enhance short and long-range outlooks and projections.

d. Provide weather briefings to GACC and NIFC Coordinators and Multiagency Coordinating Groups.

e. Manage weather and climatology portions of GACC web site.

f. Manage agency fire weather infrastructure.

g. Smoke management.

2. Program Management

Program management of federal land management and fire agencies' fire weather responsibilities, which includes:

a. Program coordination with state agencies.

b. Programmatic guidance, evaluation and certification.

c. Advice and staff support to Fire Directorate

d. Manage weather station network.

e. Liaison between field users and service providers.

f. Participation in activity reviews.

3. Monitoring, Feedback and Improvement

a. Transmit feedback to product and service providers.

b. Suggest improvements to providers of products and services received.

c. Advise agencies on quality control of weather observations.

d. Coordination with NWS and users in assessment and evaluation of program effectiveness.

e. Fire weather expertise in accident/incident investigations.

4. Technology Transfer

a. Transfer meteorology and climatology knowledge to field level personnel.

b. Promote proper usage by agency personnel of weather and climate products

and services.

c. Conduct training/expertise needs assessment.

d. Coordinate data and technology acquisition.

e. Participation on training cadre.

5. Agency Computer Systems

Where fire management computer systems are locally available, access to the systems will be granted to NWS to provide services, as needed. Costs will be borne by the Interagency Wildland Fire Agencies for requirements that are beyond the distribution of weather information through a central communications gateway.

6. Fire Weather Observations:

a. Provide routine surface weather observations to NWS.

b. Provide all equipment, equipment maintenance, inspection of weather observation sites, and data quality control.

c. Pay all travel and per diem costs associated with Interagency Wildland Fire Agencies' requests for visits of NWS personnel to weather observing sites.

d. Provide for collection, storage and retrieval of remote automatic weather stations (RAWS) data.

e. Provide observations for site specific and other special forecasts.

7. On-Site Meteorological Support:

a. Pay costs directly associated with on-site meteorological support by NWS personnel. This includes costs incurred by the NWS IMET duty station.

b. Provide logistical and weather observation support to NWS personnel at onsite operations.

c. Provide and pay costs associated with telecommunication services.

8. Training:

a. Pay per diem and travel costs for NWS personnel instructing and providing course development in Wildland Fire Agency training.

b. Provide technical assistance, instruction, and supporting material for NWS sponsored fire weather training sessions.

9. Other Non-Routine Services

Interagency Wildland Fire Agencies will provide logistics support and pay all overtime, travel, and per diem costs of NWS personnel associated with the provision of all other special fire meteorological services, including Wildland Fire agency approved wildland fire familiarization for NWS personnel.

6.0 JOINT RESPONSIBILITIES:

NWS and Interagency Wildland Fire Agencies shall jointly prepare national and Geographic Area specific MOUs and/or AOPs for Fire Weather Services that will set policy and procedures at GACC, NIFC, state or forecast office level, and shall include:

A. Shared responsibilities of all participants shall include, but not limited to weather briefings, training, research, product/service verification as outlined in Geographic Area specific AOPs.

B. Provision for monitoring, feedback and improvement.

C. Procedure for documenting, monitoring and evaluating fire weather products, briefings and services delivered.

D. Provision for monitoring and evaluating advances in science and technology.

E. Provision for efficient means for technology transfer.

F. Provision for participation in fire weather research activities.

G. Provision that on-site IMET services may be provided by Interagency Fire Weather Meteorologist meeting NWS standards only when NWS IMETs are not available to meet Wildland Fire Agency resource requests on a national basis. The coordination for Interagency Fire Weather Meteorologists will be done between the NWS IMET coordinator and the National Interagency Coordination Center.

H. Provision that NWS meteorologists and Interagency Wildland Fire Agency meteorologists stationed at GACCs and at NIFC will work together to ensure fire agency decision makers receive consistent and coordinated fire weather products and services.

I. Provision that the NWS and Interagency Wildland Fire Agencies will jointly develop and share technology including meteorological software and data, Advance Technology Meteorological Units, portable weather stations, etc. to improve abilities and performance.

J. The NWS and Wildland Fire Agency meteorologists shall work closely in all phases of the fire weather forecast and warning program to resolve concerns and avoid potential inconsistencies in products and services prior to delivery to fire agency customers. The goal of all agencies is to maximize firefighter and public safety through a coordinated delivery of consistent services.

K. The Parties recognize that, given the current administrative process for payments for fire

suppression activities, it is not feasible to obligate the full amount of funds that may be required by this Agreement, because the Agreement does not constitute a binding obligation under 31 U.S.C. § 1501 since it cannot anticipate the specific goods or services for which payment will be requested, or the individual payment amounts, in each future case. This information can only be provided by Resource Orders executed when the goods or services are requested. At the same time, the Parties recognize that Resource Orders are insufficient to constitute a binding obligation under the statute because there is no evidence of intent to be bound, no authorized signatures are present, and no legal authorities are cited. However, these requirements are satisfied by the Agreement. The two documents, when taken together, contain all the elements required for an obligation under the statute. Hence, the Parties agree that this Agreement shall automatically be incorporated by reference into any Resource Orders issued under it, and that anobligation of funds will occur at the time the NWS presents a copy of this Agreement and the Resource Orders for payment. The parties also agree to work toward a more efficient resolution of this administrative process for obligation and payment of fire suppression funds.

7.0 STATEMENT OF WORK.

Procedures for notification of and obtaining services from the NWS will be prepared and specified in the Annual Operating Plans (AOP) and/or in the MOUs for the Geographic Area Coordinating Centers, and in the Geographical Area and National Mobilization Guides. An electronic copy of the National Mobilization Guide can be viewed via www.nifc.gov - select "National Interagency Coordination Center" – select "References" link to National Mobilization Guide.

8.0 TRANSFER OF FUNDS.

A. Billing and collection procedures will follow the Intra-governmental Payment and Collection (IPAC) system process.

B. Wildland Fire Suppression Activities: Transfers under this subsection are under the Disaster Relief Act, 42 U.S.C. § 5147. Reimbursable costs are estimated not to exceed a maximum of $2,000,000.00 per fiscal year. In the event this amount is insufficient for a particular fiscal year, this Agreement may be modified to increase the amount of funding, subject to the availability of funds. This Agreement is automatically incorporated

by reference into any Resource Order that is issued under it, constituting a binding obligation. The Interagency Wildland Fire Agencies warrant that they will administratively reserve these funds to ensure that the funds will be available when the obligations are recorded. The recording of the obligations will occur upon the receipt of the billings from the NWS by the applicable Interagency Wildland Fire Agency. The billings, inclusive of copies of this Agreement, the Resource Order(s), and expenditure documentation, will define the specific services, supplied goods and costs for each order, and subsequent obligation and payment.

1. Reimbursement payments for suppression-related activities will be accomplished by submission of billings, which are inclusive of copies of the Resource Orders that define the requested services and goods, and the expenditure back-up documentation. The NWS will not charge an administrative surcharge or any other expenditure that is not authorized under the Wildland Fire Agencies' Appropriation Acts related to these activities

2. It is the responsibility of the requesting agency/office to provide billing instructions to the NWS office that provided the service, which includes the items listed below. It is also the responsibility of the requesting agency/office to conduct any required verification of costs, authorization of expenditures and reconciliation of payment.
   a) The fire name, jurisdictional unit, and incident number (The copy of the Resource Order generally includes this information);
   b) Applicable support documentation requirements;
   c) A copy of this Agreement complete with signatures;
   d) Identification (name and phone number) of NWS financial contact;
   e) Provide information to NWS regarding which payment center to send the billings

for processing; and

f) Billings and support documentation are to be submitted to the appropriate payment center by the NWS within sixty-days of completion of service.

C. Non-Wildland Fire Suppression Activities: Obligation of funds and payments for non-wildland fire suppression activities that are included in the Annual Operating Plan (AOP) shall be accomplished by Task Orders against this Agreement between the concerned agencies by the responsible officers at the appropriate level operating within their authority.

1. All funding obligations must be placed against the individual agency/office's Task Order number and not against this Agreement number.

2. Task Orders to this Agreement may be approved and signed for the NWS by the Director, Office of Climate, Water and Weather Services.

3. Each federal agency shall make direct settlement from its own funds for all liabilities it incurs under this Agreement.

4. The NWS will not charge any agency that is signatory to this Agreement an indirect administrative surcharges for activities addressed in the respective Annual Operating Plan(s) and Geographical Area MOUs, and are requested through Task Orders or Resource Orders under the National Mobilization Guide.

5. Task Orders may be prepared in any format acceptable to the agencies involved in each project. At a minimum, each Task Order written in support of this Agreement will

include the following items:

a) Detailed description of services to be done or supplies to be delivered;

b) Description of the deliverables;

c) Performance period for completion;

d) Cost estimates;

e) Identify responsible project officials for each Task Order agency;

f) Payment procedures (applicable billing procedures, identification of codes, method of payment—advance/reimbursement; and Signature(s) by authorized personnel for each Task Order agency.

g) Signature(s) by authorized personnel for each Task Order agency.

9.0 TERM OF AGREEMENT.

The terms of this Inter-agency Agreement shall become effective with and upon execution by NWS and any or all Interagency Wildland Fire Agencies and shall remain in effect for a period of five-years from the date the last signature was placed on the signatory section, or until such time as the Inter-agency Agreement is terminated by mutual agreement. Any signatory may terminate their participation in this Agreement by written notice to all other signatories provided that such notice shall be given between the dates of October 1 of any year and February 1 of the following year. Full credit shall be allowed for each party's expense and all non-cancelable obligations properly incurred up to the effective date of termination. The remaining signatories may continue the provisions of this Agreement as long as the NWS remains a signatory.

10.0 RESOLUTION OF DISAGREEMENT.

Should disagreement arise on the interpretation of the provisions of this Agreement, or modifications thereto, that cannot be resolved at the operating level, the area(s) of disagreement shall be stated in writing by each party and presented to the other party for consideration. If agreement on interpretation is not reached within thirty-days, the parties shall forward the written presentation of the disagreement to

respective higher officials for appropriate resolution. Conflicts and/or disagreements that cannot be resolved at the regional (GACC) level will be elevated to the National Fire Weather Program Managers for the NWS and Interagency Wildland Fire Agencies. If the conflict cannot be resolved at the National Program Managers level, the conflict will be elevated to the Agency Director level (NWS and applicable Wildland Fire Agency Director) for final resolution.

11.0 GENERAL PROVISIONS.

A. Parties to this Agreement are not obligated to make expenditures of funds or provide services under terms of this Agreement unless such funds are appropriated or services are authorized by either the State Legislatures or the Congress of the United States, or are otherwise available under Section 101 and 102 of the Annual Appropriations Act for Interior and Related Agencies.

B. The points of contact listed in Section 13 will review this Agreement annually.

C. Modifications to this Agreement may be initiated by any signatory agency. The modifications shall not take effect until documented and signed by all signatory agencies.

1. The BLM is designated as the agency responsible for all administrative oversight of modifications to this agreement.

2. Modifications to this Agreement may be approved for the NWS and signed by the Director, Office of Climate, Water and Weather Services, or pursuant to NWS protocol.

D. The signatory Interagency Wildland Fire Agencies agree to consider expansion of this

Agreement to cover areas of mutual concern, e.g., changing technology and improved procedures, as opportunities for such cooperation become available.

12.0 WAIVER.

Each party to this agreement does hereby expressly waive all claims against the other party for compensation for any loss, damage, personal injury or death occurring in consequence of the performance of this agreement.

13.0 PRINCIPAL CONTACTS.

The Points of Contact are responsible for coordinating an annual review of the currency and adequacy of this Agreement among the signatories, and/or their designees.

National Weather Service:

National Fire Weather Program Manager
Rusty Billingsley
National Weather Service
3833 South Development Ave.
Boise, ID 83705
208/334-9824 – Office
david.billingsley@noaa.gov

Interagency Wildland Fire Agencies:

NIFC Fire Weather Program Manager

Rick Ochoa

National Interagency Fire Center

3833 South Development Ave.

Boise, ID 83705

208/387-5451-Office

rick_ochoa@nifc.blm.gov

14.0 DEFINITIONS.

When the following terms are used in this Agreement, or in an AOP, such terms will have the meanings stated below.

A. Annual Operation Plan for Fire Weather Services (AOP): A procedural guide, based on the National Interagency MOU and applicable Geographic Area MOUs, which describes fire meteorological services provided within the Geographic Area of responsibility, including NIFC. At a minimum the AOP will include the items in Appendix 1, Annual Operating Plan - Required Elements and Suggested Format.

B. Assessment: Fire weather and/or fire danger product based on a thorough evaluation of all pertinent sources of meteorological and fire danger information.

C. Basic Meteorological Services: Basic meteorological services are those state-of-the-science meteorological forecasts, warnings, observations and statements produced at a designated NWS office.

D. Fire Weather Watch: Fire Weather Watch is issued to advise of conditions, which could result in extensive wildfire occurrence or extreme fire behavior, which are expected to develop in the next 12 to 48 hours, but not more than 72 hours. In cases of dry lightning, a Fire Weather Watch may be issued for the next 12 hours. Fire Weather Watch meteorological and fuel criteria will be defined in the AOP.

E. Geographic Area: A geographic boundary designated by Interagency Wildland Fire Agencies, where these agencies work together in the coordination and effective utilization of resources within their boundaries. The National Interagency Mobilization Guide identifies the areas encompassed by the eleven Geographic Areas.

F. Geographic Area Memorandum of Understanding (MOU): A document, based on the National Interagency Memorandum of Understanding for Meteorological Services, which establishes local policy to meet unique needs of a Geographic Area.

G. Incident Meteorologist (IMET): A meteorologist specially trained to provide on-site meteorological support of Wildland Fire Agency designated incidents.

H. Non-Routine Services: Meteorological services uniquely required by interagency Wildland Fire Agencies, which usually are not provided from a designated NWS office.

I. On-Site Meteorological Services: Special service which dedicates an IMET to an incident so that they are removed from their normal duties.

J. Predictive Services: Those Geographic Area/national level fire weather and/or fire danger services and products produced by Wildland Fire Agency meteorologists in support of resource allocation and prioritization.

K. Red Flag Warning: Red Flag Warning is used to warn of impending or actually occurring critical weather conditions that could result in extensive wildland fire activity. A warning will be issued when the forecast time of onset is less than 24 hours. Red Flag Warning meteorological and fuel criteria will be defined in the AOP.

L. Routine Fire Weather Forecasts: A Routine Fire Weather Forecast is a scheduled narrative and/or matrix forecast of weather parameters pertinent fire management activities in support of protection of life, property, and resources at risk in a given area. The number of parameters may vary due to regional weather requirements, but normally include a brief weather synopsis, expected weather and clouds, duration of precipitation, maximum and minimum temperature/relative humidity, wind direction and speed, transport and stability parameters, and lightning activity level. These forecasts normally cover the next 48 hours and may include input for the computation of National Fire Danger Rating System indices. These forecasts may also include long-range outlooks.

M. Site Specific Forecasts: Site-specific forecasts are issued when requested by Interagency Wildland Fire Agencies for wildland fires. These forecasts differ from routine fire weather forecasts by incorporating greater detail in timing, higher resolution of terrain influences, and incorporate meso-scale and sometimes micro-scale weather influences impacting the site. These may be generated from an office with Wildland Fire supplied information (i.e., location, weather observations, objectives) or generated by an IMET assigned to the incident. Forecast formats may vary but all are highly tailored to satisfy requirements of the incident objectives.

N. Wildland Fires: All ignitions that occur on wildlands.

Signature Page

This Operating Plan becomes effective when all parties have signed the approval letters and will be effective until superseded by the 2004 Annual Operating Plan.

An approval letter will be sent to each of the agencies below. Copies of these letters will be kept on file at the National Weather Service Forecast Offices (Jackson and Louisville).

National Weather Service		
Office	Approving Authority	Date Signed
NWS Jackson, KY	MIC	
NWS Louisville, KY	MIC	
Central Region Headquarters Kansas City, MO	Regional Operations Services Meteorologist	

User Agencies: The Kentucky Coordination Center Represents federal and state users at the Department of Agriculture (USFS), National Park Service and Kentucky Division of Forestry.

Office	Approving Authority	Date Signed
KICC Winchester, KY	Director KICC	